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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/867,367	05/29/2001	Rita Kumar	11378.14USC1	6299

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MERCHANT & GOULD PC
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

EXAMINER

WANG, SHENGJUN

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 07/30/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/867,367

Applicant(s)

KUMAR ET AL.

Examiner

Shengjun Wang

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 1, 7 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETEILED ACTION

1. Claims 1 and 7-8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in Paper No. 7.

2. Applicant's election with traverse of invention group I, claims 2-6 in Paper No. 7 is acknowledged. The traversal is on the ground(s) that the applicants do not wish to be bound by the logic of the examiner. This is not found persuasive because the inventions are distinct for reasons given in the prior office action.

The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

3. Claim 2 is objected to because of the following informalities: in claim 2, step (e), line 3, "the4" appears to be a typographic error. Appropriate correction is required.

4. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 4 limiting the selected bacteria are *Bacillus alkalophilus*, *Bacillus sp.* is not further limiting claim 2 because in step (a) of claim 2, the bacteria are limited to *Bacillus alkalophilus*, *Bacillus sp.*

Claim Rejections 35 U.S.C. 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyer et al. (U), Boyer et al. (V) in view of Horikoshi et al. (A), Colaruotolo et al. (B), Boyer et al. (IDS), Takowa et al. (IDS) and Jones (IDS).

7. Boyer et al. teaches a method of isolating and inoculating alkaliphilic bacteria, *Bacillus alkalophilus* and/ or *Bacillus* sp. from sewage comprising culturing the isolate at high pH, wherein the medium containing magnesium, tryptone, yeast extract and a proper buffer. See, the abstract, and page 239, the left column in Boyer (U); and the abstract, and the right column at page 992 in Boyer et al. (V).

8. Boyer references do not teaches expressly additional particular steps of acclimatization employed herein, particularly, the medium employed herein.

However, Horikoshi et al. teaches that the medium employed herein are known generally for bacterial culture in general, and for alkaliphilic bacteria in particular. See, particularly, columns 3-8. Colaruotolo et al. teaches that it is known to acclimating a microorganism to an environment wherein the microorganism is applied. See, column 3, lines 20-50. Boyer et al. (IDS) teaches a procedure for selecting alkaliphilic bacterial comprising first isolate alkaliphilic bacteria from soil and culture the isolated bacteria with different conditions (such as high pH) and medium sequentially to optimize and select the most desirable alkaliphilic bacteria (producing acid). The medium employed comprising tryptone, yeast extract, sodium carbonate, sodium bicarbonate, soy flour, etc. See, particularly, the examples 1 and 2 in columns 9-10. Jones also teaches that in the process of isolation of alkaliphilic bacteria, various condition and media may be employed according the particular property of the bacteria. See, column 7, lines 50

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bridging column 8, line 64. Further, Takowa et al teach that alkaliphilic bacteria, e.g., *Bacillus* sp. are known to be useful for treating alkaline waste-water. See, particularly, the abstract.

Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to further select and acclimate the alkaliphilic bacteria isolated for sewage to be best suit for alkaline wastewater treatment, specifically, be suitable at high pH and be able to produce acids

A person of ordinary skill in the art would have been motivated to further select and acclimate the alkaliphilic bacteria isolated for sewage to be best suit for alkaline wastewater treatment, specifically, be suitable at high pH and be able to produce acids because it is known in the art that bacteria may be selected and acclimated to be used in an environments for a specific purpose, such as in an alkaline condition, and for producing acid to neutralize the alkaline condition. The optimization of the media and the particular procedure for selection and acclimation using old and well known media ingredients, such as tryptone, soy flour, carbonate, etc, and old and well known steps, such as inoculation, centrifuge, or isolation, is seen to be an optimization of a result effective parameter, and is considered within the skill of the artisan, absent evidence to the contrary. See, In re Boesch and Slaney (CCPA) 204 USPQ 215.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang, Ph.D. whose telephone number is (703) 308-4554. The examiner can normally be reached on Monday-Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minna Moezie, J.D., can be reached on (703) 308-4612. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Examiner

A handwritten signature in black ink, appearing to read 'S. Wang' with a stylized flourish at the end.

Shengjun Wang

July 20, 2002